Applicants: Yinan Wu, et al.

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Serial No.: 10/077,593

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Listing of the Claims:

1. (Previously Presented) Apparatus comprising

a connector configured for insertion and removal of a digital device, the connector having

contacts arranged to make electrical connection to conductors on the digital device while the

digital device is inserted in the connector, and

a first electromagnetic coupler connected to at least one of the contacts of the connector,

the electromagnetic coupler being configured for electromagnetic coupling at an interface to a

second electromagnetic coupler that is connected to a communication bus,

the connector comprising a rigid coupling element, and the first electromagnetic coupler

being on a surface of the rigid coupling element.

2. (Previously Presented) The apparatus of claim 1 in which the connector comprises a

socket.

3. (Previously Presented) The apparatus of claim 2 in which the socket is configured to

receive a memory card.

4. (Previously Presented) The apparatus of claim 1 in which the contacts comprise

spring contacts.

5. (Previously Presented) The apparatus of claim 1 in which the contacts are configured

to carry signals.

6. (Previously Presented) The apparatus of claim 1 in which the digital device comprises

a memory card.

7. (Previously Presented) The apparatus of claim 1 in which the digital device comprises

an I/O card.

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8. (Canceled)

9. (Previously Presented) The apparatus of claim 1 in which the connector comprises a socket body having a slot configured to receive the digital device and a cavity to receive the rigid coupling element.

10. (Previously Presented) The apparatus of claim 9 in which the connector comprises a spacer that defines a fixed distance between a wall of the cavity and the rigid coupling element.

- 11. (Previously Presented) The apparatus of claim 1 also including a viscous liquid on the first electromagnetic coupler.
- 12. (Previously Presented) The apparatus of claim 1 in which the contacts of the connector are soldered to pads on a surface of the rigid coupling element, and the pads are electrically connected to the first electromagnetic coupler by vias in the rigid coupling element.
- 13. (Previously Presented) The apparatus of claim 1 in which the contacts of he connector are soldered to through holes in the rigid coupling element.
- 14. (Previously Presented) The apparatus of claim 1 in which the rigid coupling element comprises a core and metalization layers on two faces of the core.
- 15. (Previously Presented) The apparatus of claim 14 in which the rigid coupling element also includes solder masks on the metalization layers.
  - 16. (Previously Presented) A system comprisinga circuit board,

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a bus arranged on the circuit board,

electromagnetic couplers defined at locations along the bus,

sockets having rigid electromagnetic couplers and contacts for connection to contact pads of device boards, the sockets being mounted to define interfaces across which electromagnetic coupling of signals can occur between the electromagnetic couplers defined along the bus and the electromagnetic couplers on the sockets.

- 17. (Previously Presented) The system of claim 16 in which the sockets are mounted on the board by pins.
- 18. (Previously Presented) The system of claim 16 in which each of the sockets has an electromagnetic coupler for each of a set of signals carried by the contacts of the sockets.
- 19. (Previously Presented) The system of claim 16 in which each of at least some of the electromagnetic couplers have a zig-zag configuration.
- 20. (Previously Presented) The system of claim 16 also including a processor mounted on the board and coupled to the bus.
  - 21. (Previously Presented) A system comprising

a circuit board,

a bus arranged on the circuit board,

electromagnetic couplers defined at locations along the bus,

sockets having rigid electromagnetic couplers and contacts for connection to contact pads of device boards, the sockets being mounted to define interfaces across which electromagnetic coupling of signals can occur between the electromagnetic couplers defined along the bus and the electromagnetic couplers on the sockets, and

device boards mounted in the sockets.

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22. (Previously Presented) The system of claim 21 in which the device boards include memory devices or I/O devices.

## 23. (Previously Presented) A method comprising

conducting digital signals along a bus,

at locations along the bus, coupling the digital signals to sockets through rigid electromagnetic couplers,

> within the sockets conducting the digital signals to contacts, and conducting the signals from the contacts to boards plugged into the sockets.

24. (Previously Presented) The method of claim 23 in which the signals comprise memory address and data signals.

## 25. (Previously Presented) A method comprising

mounting sockets on a circuit board at locations of electromagnetic bus couplers using a force that causes viscous material to be squeezed and to flow to fill air gaps between the sockets and the circuit board, and

populating the circuit board with components that include a processor coupled to a bus served by the electromagnetic bus couplers.

26. (Previously Presented) The method of claim 25 also including inserting digital devices into the sockets.

## 27. (Previously Presented) Apparatus comprising

a connector configured for insertion and removal of a digital device, the connector having contacts arranged to make electrical connection to conductors on the digital device while the digital device is inserted in the connector,

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a first electromagnetic coupler connected to at least one of the contacts of the connector,

the electromagnetic coupler being configured for electromagnetic coupling at an interface to a

second electromagnetic coupler that is connected to a communication bus, and

a viscous liquid on the first electromagnetic coupler.

28. (Previously Presented) The apparatus of claim 27 in which the communication bus is

on a dielectric substrate, and a dielectric constant of the viscous liquid is similar to a dielectric

constant of the substrate.

29. (Previously Presented) The apparatus of claim 27 also including a substrate bearing

the second electromagnetic coupler.

30. (Previously Presented) The apparatus of claim 29 in which the substrate comprises a

motherboard.

31. (Previously Presented) The apparatus of claim 29 in which the viscous liquid fills a

gap between the first electromagnetic coupler and the second electromagnetic coupler.